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عنوان مقاله:

Extremely low frequency electromagnetic fields change BCL۲,miR-۱۵-b and miR-۱۶ expression in human gastric cancer cell line

محل انتشار:

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خلاصه مقاله:

In this research, changes in the expression of BCL۲, miR-۱۵-b, and miR-۱۶ in human gastric cell line (AGS) following the exposure to magnetic flux densities (MFDs) of ۰.۲ and ۲ mT for ۱۸ h were investigated. Changes in the cell viability were evaluated by MTT assay. Real-time PCR was used to evaluate the expression changes of BCL۲, miR-۱۵-b, and miR-۱۶. The results showed that ELF-EMF could significantly reduce the viability of AGS cells in the continuous MFD of ۲ mT. The BCL۲ expression was significantly decreased following the exposure to continuous MFDs of ۰.۲ and ۲ mT and discontinuous MFD of ۲ mT. The expression of miR-۱۵-b, and miR-۱۶ was significantly increased in continuous and discontinuous MFD of ۲ mT. According to the results, weak and moderate ELF-EMFs can change the expression of BCL۲, miR-۱۵-b, and miR-۱۶.

کلمات کلیدی:

Electromagnetic fields; Adenocarcinoma gastric cell line (AGS); MiR-۱۵-b; miR۱۶; BCL۲

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